
Line Sharing

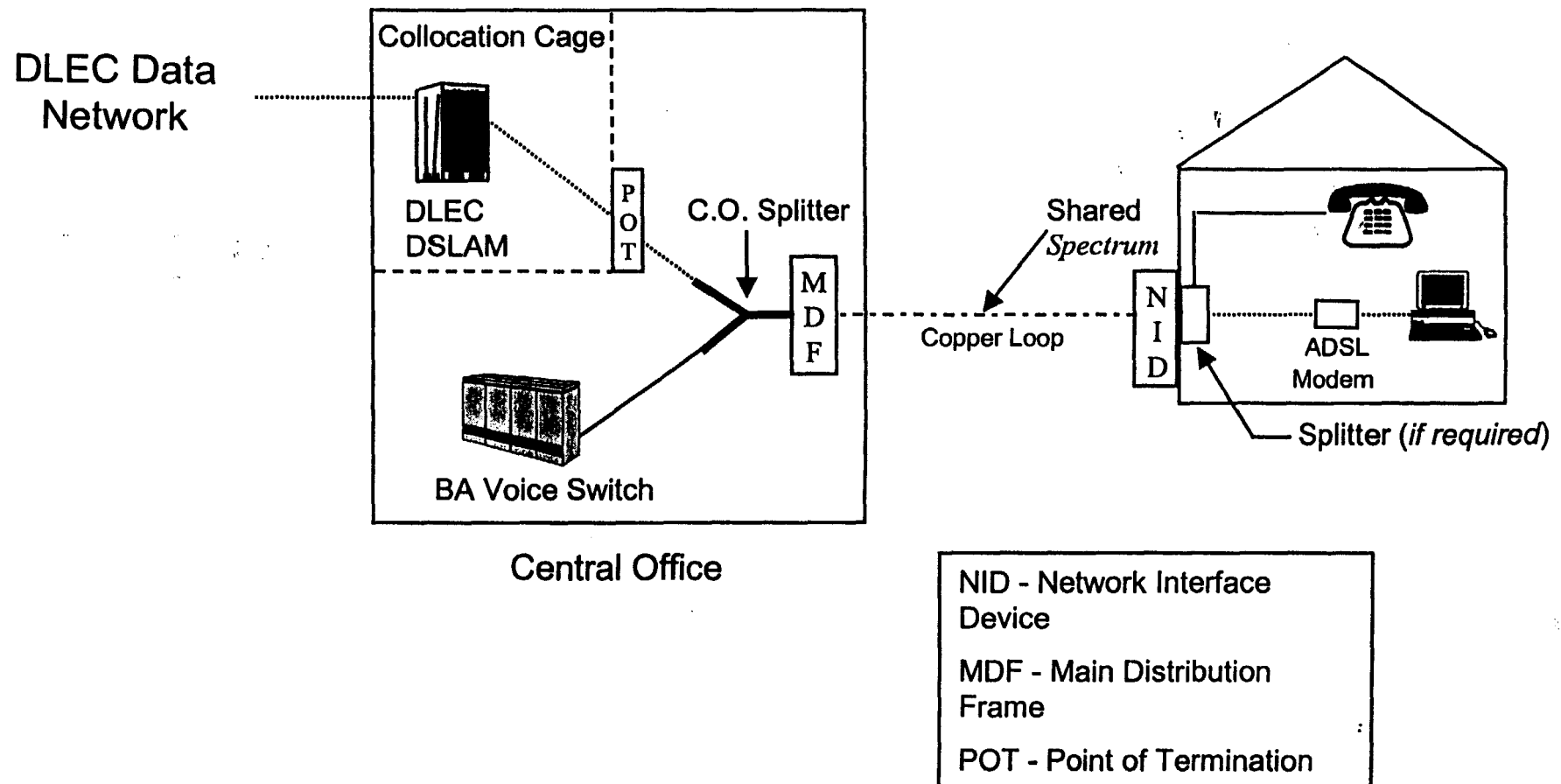




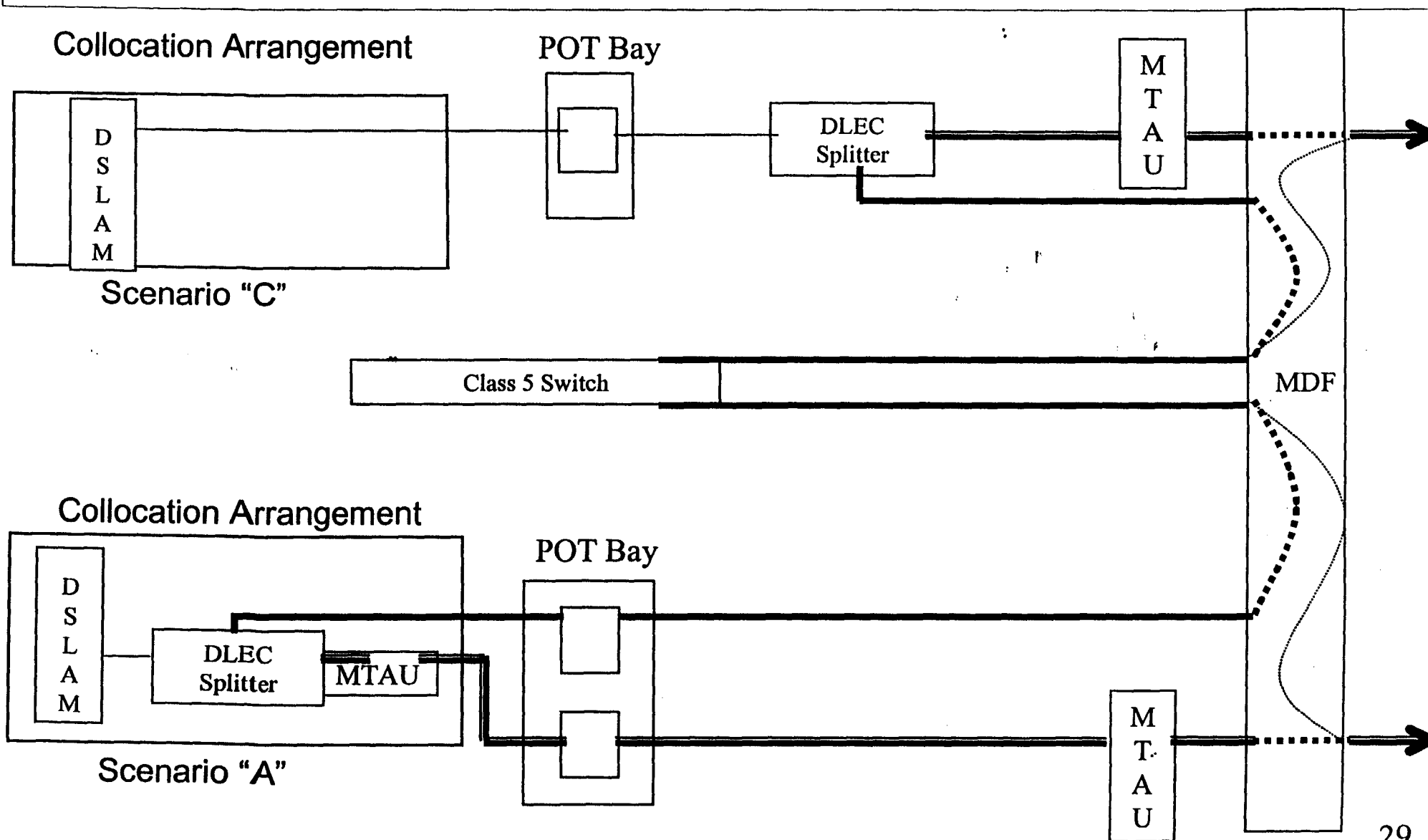
Line Sharing Issues

- ♦ **Architecture**
- ♦ **Engineering**
- ♦ **FCC requirements**
- ♦ **Offering**
- ♦ **Implementation**
- ♦ **OSS**
- ♦ **Order Process Flow**
- ♦ **Collocation Project Management**
- ♦ **Comparison to DSL provisioning**

Line Sharing Architecture



Line Sharing Central Office Configuration



Line Sharing

FCC Requirements



- ♦ **ILECs must unbundle the high frequency portion of those loops on which they provide the voice service.**
- ♦ **The line sharing obligation does not apply to situations in which the ILEC is not providing the voice service.**
- ♦ **CLECs are only permitted to deploy xDSL technology that is compatible with the ILECs' analog voice service.**
- ♦ **Any conditioning of the loop to accommodate line sharing must not significantly degrade the voice service.**
- ♦ **The ILEC must give the CLEC test access to the shared loop facility.**

Line Sharing *Offering*



- ♦ **Line sharing is available via interconnection agreements.**
- ♦ **CLECs have two options for placement of the splitter.**
- ♦ **Verizon has received very few line sharing orders from unaffiliated CLECs.**

Line Sharing *Implementation*



- ♦ **Verizon developed its line sharing offering with input from its customers the CLECs.**
 - Verizon participated in line sharing collaboratives that involved CLECs and state commission staffs.
 - Verizon hosted line sharing trials.
- ♦ **Verizon has increased its workforce to accommodate line sharing orders.**
 - Verizon has developed forecasts of demand using CLEC input.
 - Verizon has increased staff in 2 xDSL/line sharing centers.

Line Sharing OSS



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- ♦ **Verizon has upgraded its systems to enable CLECs to submit line sharing orders electronically.**
 - ♦ **Once Verizon receives a CLEC's line sharing order, it generates both a retail and wholesale order in its systems.**

Line Sharing

Order Process Flow



- ♦ **Pre Order (same as stand-alone DSL)**
 - CLEC may perform Loop Qualification
- ♦ **Order (same as stand-alone DSL)**
 - CLEC submits LSR
 - Loop qualification status noted on LSR or
 - Loop qualification or full loop makeup request
 - Verizon reviews LSR
 - Queries CLEC if corrections are required
 - Provides confirmation, order date and forwards to Provisioning if ok

Line Sharing

Order Process Flow



♦ Provisioning

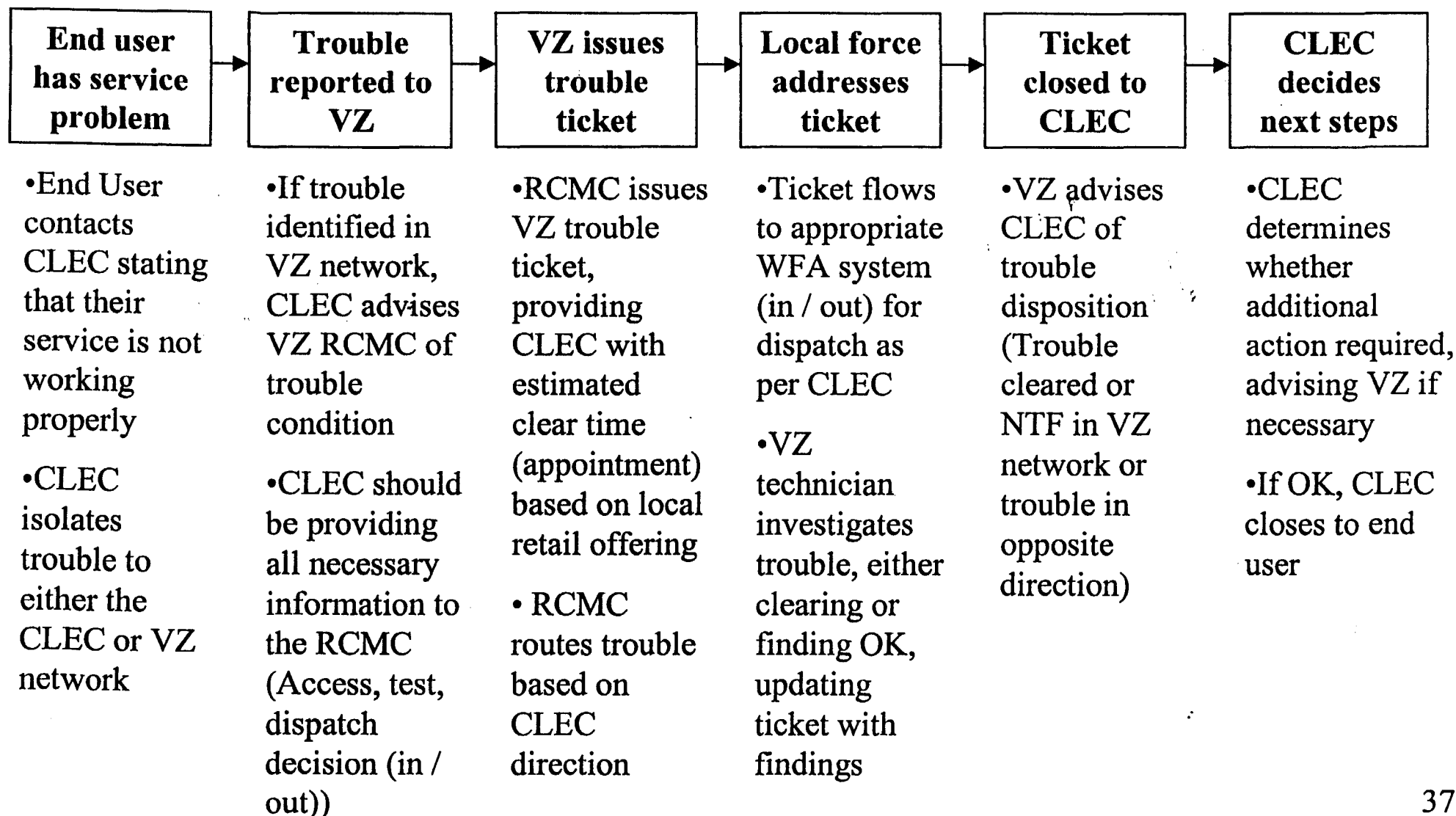
- Order proceeds through Verizon systems for inventory, assignment, activation and dispatch function.
- Central Office dispatch for wiring and field technician (if required) dispatch
- Testing by Verizon completed
- CLEC notified of status of order (Due date +1)
- Order updated and sent to billing process

Loop Repair Overview



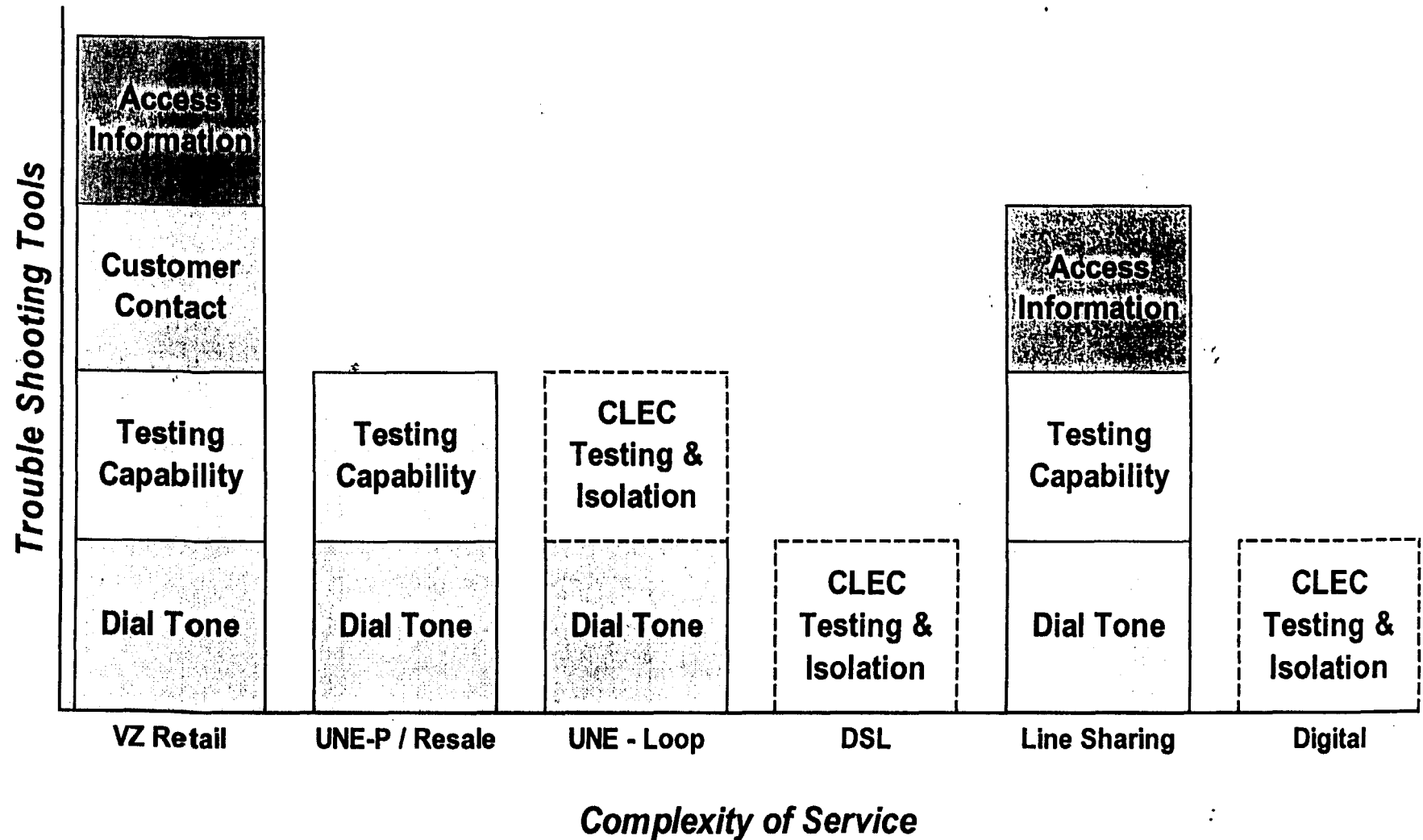


Simplified Repair Process





Maintenance Variables





CLEC Maintenance Issues

- ♦ **Loop Testing**
- ♦ **Weekend appointments**
 - Rejecting weekend offering skews Mean Time To Repair and Missed Repair Appointment measures
- ♦ **Misdirected trouble report**
 - High No Trouble Found rate leads to frustration on both sides
 - Potential access problems
 - Wastes resources and time
- ♦ **Acceptance of loops not DSL-capable**
 - Skews maintenance results

Transaction ID 001
Title Local Service Request
CCNA AKJ

PON ACI2000151772
VER AA
LSRNO EP20000930062354
ATN 617-013-3833
DTSENT 2000-09-30-1200PM
DDD 2000-10-06
APPCODE X
REQTYP AB
ACT C
CC ACIC
AGAUTH Y
ACTL [REDACTED]
TOS 2NN
NC UAR-
NCI 02QB9.00A
SECNCI 02DU9.01A
INIT [REDACTED]
INITTELNO [REDACTED]
ALTIMPCON [REDACTED]
ALT IMPCON TEL NO [REDACTED]
Transaction ID 002
Title End-User Information
CLECCUSTNAME [REDACTED]
EATN [REDACTED]
Transaction ID 003
Title Loop Service
LQTY 1
SVGTYP R
Group Name ECCKT -----
CKR [REDACTED]
LNA N
SYSTEM ID 900

SHELF 01
CHAN/PAIR 006
LOOPQUAL C
End Group Name ECCKT -----
SVGTYP R

BELL ATLANTIC PROPRIETARY INFORMATION
BELL ATLANTIC SERVICE REQUEST

DATE 10/02/00

PAGE 1

LAC-OK

Transaction ID 001

Title Local Service Request

CCNA OVC

PON 659577LQ

VER AA

LSRNO EP20001001101344

ATN 617-810-0072

SC CC00

DTSENT 2000-10-01-0221PM

DDD 2000-10-10

APPCODE W

REQTYP AB

ACT C

CC [REDACTED]

AGAUTH Y

ACTL [REDACTED]

TOS 2NN

NC LXR-

NCI 02QB9.00A

SECNCI 02DU9.00A

BILLNM [REDACTED]

BILSTREET 2 [REDACTED]

BCITY [REDACTED]

BILSTATE [REDACTED]

BILZIP [REDACTED]

BILLCON [REDACTED]

INIT [REDACTED]

INITTELNO [REDACTED]

ALTIMPCON TECH TEST CTR

ALT IMPCON TEL NO [REDACTED]

REMARKS ADSL-R/LOOP IS PREQUALIFIED.

Transaction ID 002

Title End-User Information

BELL ATLANTIC PROPRIETARY INFORMATION
BELL ATLANTIC SERVICE REQUEST

DATE 10/02/00

PAGE 2

CLECCUSTNAME [REDACTED]
SANO [REDACTED]
SASN [REDACTED]
SATH [REDACTED]
EUCITY [REDACTED]
EUSTATE [REDACTED]
EUZIP [REDACTED]
LCON A [REDACTED]
LCTELNUM [REDACTED]

Transaction ID 003

Title Loop Service

LQTY 1

SVGTYP G

Group Name ECCKT -----

CKR 699771

LNA N

ECCKT 1

CABLE ID MT01H

CHAN/PAIR 00111

LOOPQUAL C

End Group Name ECCKT -----

SVGTYP G

BELL ATLANTIC PROPRIETARY INFORMATION
BELL ATLANTIC SERVICE REQUEST

DATE 10/02/00

PAGE 1

LAC-OK

Transaction ID 001

Title Local Service Request

CCNA OVC

PON 659577LQ

VER AA

LSRNO EP20001001101344

ATN [REDACTED]

SC CC00

DTSENT 2000-10-01-0221PM

DDD 2000-10-10

APPCODE W

REQTYP AB

ACT C

CC [REDACTED]

AGAUTH Y

ACTL [REDACTED]

TOS 2NN

NC LXR-

NCI 02QB9.00A

SECNCI 02DU9.00A

BILLNM [REDACTED]

BILSTREET [REDACTED]

BCITY [REDACTED]

BILSTATE [REDACTED]

BILZIP [REDACTED]

BILLCON [REDACTED]

INIT [REDACTED]

INITTELNO 8 [REDACTED]

ALTIMPCON TECH TEST CTR

ALT IMPCON TEL NO [REDACTED]

REMARKS ADSL-R/LOOP IS PREQUALIFIED.

Transaction ID 002

Title End-User Information

BELL ATLANTIC PROPRIETARY INFORMATION
BELL ATLANTIC SERVICE REQUEST

DATE 10/02/00

PAGE 2

CLECCUSTNAME [REDACTED]
SANO [REDACTED]
SASN [REDACTED]
SATH [REDACTED]
EUCITY [REDACTED]
EUSTATE [REDACTED]
EUZIP [REDACTED]
LCON [REDACTED]
LCTELNUM [REDACTED]

Transaction ID 003

Title Loop Service

LQTY 1

SVGTYP G

Group Name ECCKT -----

CKR 699771

LNA N

ECCKT 1

CABLE ID MT01H

CHAN/PAIR 00111

LOOPQUAL C

End Group Name ECCKT -----

SVGTYP G

BELL ATLANTIC PROPRIETARY INFORMATION
BELL ATLANTIC SERVICE REQUEST

DATE 10/02/00

PAGE 1

Failed

Transaction ID 001

Title Local Service Request

CCNA OVC

PON 375133

VER AA

LSRNO EP20000501049934

ATN 617-810-0057

SC CC00

DTSENT 2000-05-01-0800AM

DDD 2000-05-09

APPCODE W

APPTIME A

REQTYP AB

ACT C

CC [REDACTED]

AGAUTH Y

ACTL [REDACTED]

TOS 2NN

NC LXR-

NCI 02QB9.00A

SECNCI 02DU9.00A

BILLNM [REDACTED] NS

BILSTREET [REDACTED] Y

BCITY [REDACTED]

BILSTATE [REDACTED]

BILZIP [REDACTED]

BILLCON [REDACTED]

INIT S [REDACTED]

INITTELNO [REDACTED]

ALTIMPCON TECH TEST CTR

ALT IMPCON TEL NO [REDACTED]

REMARKS ADSL-R LOOP PRE-QUAL FAILED, PLEASE PROCESS MANUALLY.

Transaction ID 002

BELL ATLANTIC PROPRIETARY INFORMATION
BELL ATLANTIC SERVICE REQUEST

DATE 10/02/00
PAGE 2

Title End-User Information

CLECCUSTNAME [REDACTED]
SANO [REDACTED]
SASN [REDACTED]
FLOOR [REDACTED]
CUSTUNITTYP [REDACTED]
CUSTUNITVAL 19
EUCITY NWTN
EUSTATE MA
EUZIP 02159
LCON [REDACTED]
LCTELNUM 6 [REDACTED]

Transaction ID 003

Title Loop Service

LQTY 1
SVGTYP G
Group Name ECCKT -----
CKR 388179
LNA N
ECCKT 1
CABLE ID NW01H
CHAN/PAIR 00172
LOOPQUAL R
End Group Name ECCKT -----
SVGTYP G



TISOC

Digital Unbundled Loop Service Qualification Form

Date Created: 05/02/2000 08:25:53 AM

Section 1 - FILLED OUT BY TISOC

CLICK HERE WHEN COMPLETED WITH LQR **WORKED**

Date sent to the LQC: 05/02/2000 08:29:58 AM

TISOC Rep Name: BRIAN BIRD	Tel Number: 800-227-0660
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CLEC Name: FAILED COVAD	PON #: 375133	Order Number(s):	Serving Wire Center: NEWTON	LSO: 617 244
End User Name: BEACON HILL NANNIES	Tel Number: NEW LOOP, WTN 617-630-1577	Address: 825 BEACON, FLR 2, SUIT 19, NEW, MA	State:	Circuit ID(s): 67, ARDU, 111917,, N E
CLEC Billing Information				
CLEC Billing Name:	Contact:	Contact TN:	Address:	

TYPE OF DIGITAL LOOP	DDL - Available Options	Informational Only -Service Code
2 Wire Digital Loop ISDN Qualified <input type="checkbox"/> Check Here	TXSU	TXSU (DLC = OK) (Without Electronics = Total Teach)
2W Digital Loop- ISDN Qualified, 18-30kft, < 6kf BT <input type="checkbox"/> Check Here	DYVU	DYVU (DLC = NO) (With Electronics = Total Teach)
2 Wire Digital Loop - HDSL Qualified <input type="checkbox"/> Check Here	AQDU	AQDU 2W met. 0 -12 kf, 24g {9kf 26g} < 2.5 kf BT (HDSL)
4 Wire digital Loop -HDSL Qualified <input type="checkbox"/> Check Here	AQDU	AQDU 4W met. 0 -12 kf, 24g {9kf 26g} 2.5 kf BT
2 Wire Digital Loop - ADSL C Qualified <input type="checkbox"/> Check Here	ARDU	ARDU ≤ 12kf non-loaded copper loop including BT, 6kf BT
2 Wire Digital Loop -ADSL R Qualified <input checked="" type="checkbox"/> Check Here	ARDU	ARDU ≤ 18kf non-loaded copper loop including BT, 6kf BT
2 Wire Digital Designed Metallic Loop 18-30 KFT <input type="checkbox"/> Check Here	HMXU	HMXU
2 Wire Digital M Loop-ISDN Qualified <input type="checkbox"/> Check Here	N/A DYVU-XELU9	2 Wire Digital M loop ISDN qualified is a design service, requires LMU. Note: This service will work over UDLC or copper loops ≤ 18kft, ≤ 6kft BT, non-loaded facilities. Requires LMU.

New Service Offering 05/30/2000

2 Wire Very Low-Band Class 1-DSL <input type="checkbox"/> Check Here HMXU	<input type="checkbox"/> Remove Bridge Tap HMXU	HMXU $\leq 18\text{kf}$ non-loaded copper loop including BT, 6kf BT Note: Service is compatible in the same binder group with a T1 XQLA9 = Loop includes BT XQLB9 = 0 BT
2 Wire Low-Band Class 2-DSL <input type="checkbox"/> Check Here HMXU	<input type="checkbox"/> Remove Bridge Tap HMXU	HMXU $\leq 18\text{kf}$ non-loaded copper loop including BT, 6kf BT or $\leq 12\text{kf}$ non-loaded copper loop, 0 BT Note: Service is compatible in the same binder group with a T1 XQLD9 = Loop Includes BT XQLE9 = 0 BT
Line Sharing will be Implemented on 06/06/2000		
Line Sharing ADSL-C <input type="checkbox"/> Check Here Note: TISOC must provide Telephone number. SWXX	<input type="checkbox"/> Remove Bridge Tap SWXX	SWXX $\leq 12\text{kf}$ non-loaded copper loop including BT, 6kf BT Note: CLECs will be utilizing retail Bell Atlantic POTS line to provision DSL services. Facility Mods are not available for Line Sharing.
Line Sharing ADSL-R <input type="checkbox"/> Check Here Note: TISOC must provide Telephone number. SWXX	<input type="checkbox"/> Remove Bridge Tap SWXX	SWXX $\leq 18\text{kf}$ non-loaded copper loop including BT, 6kf BT Note: CLECs will be utilizing retail Bell Atlantic POTS line to provision DSL services. Facility Mods are not available for Line Sharing.
Request Cost For Special Construction <input type="checkbox"/> Check Here		

Section 2 - FILLED OUT BY LQC

LQC Name: KAREN	Telephone Number: 800-338-9298
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MLT or Actual Loop Length 18200 KFT	Type Of Facilities: <input type="checkbox"/> Non-Standard Digital Loop <input checked="" type="checkbox"/> Standard Digital Loop <input type="checkbox"/> Standard Analog Loop
--------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Loop Qualified : <input type="radio"/> Yes <input type="radio"/> No Spare Facilities: <input type="radio"/> Yes <input type="radio"/> No	Loop Does Not Meet Design Criteria: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other Specify - MLT-18200, NO COUNT MAKE UP F1 FOR TMU, COULD THIS BE SHORTER? Select Here to Complete order (used for reports only) <input type="checkbox"/>
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Date Returned To TISOC:	Date Sent To FMC:
FMC Contact Name: LAWRENCE WILLIAMS	Telephone Number: 617-673-9076

Note: If DDL available options box has been selected, forward the request to the FMC for further review.

Section 3- FILLED OUT BY FMC

FMC Contact That Worked On LQR: Larry Williams	Telephone Number: 617-673-9076
-------------------------------------------------------	---------------------------------------

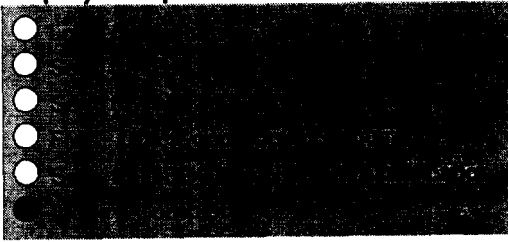
Facility Status	
Loop Qualified : <input type="radio"/> Yes <input type="radio"/> No Spare Facilities: <input type="radio"/> Yes <input type="radio"/> No Actual Loop Length 18.5 KFT Please provide loop length if MLT could not be performed by LQC group. (See section 2)	Loop Does Not Meet Design Criteria: <input checked="" type="checkbox"/> Exceeded Length Limits <input type="checkbox"/> Longer <input type="checkbox"/> No Spare Facilities Available <input type="checkbox"/> ID Error (See Section 2) <input checked="" type="checkbox"/> No Spare Facilities <input type="checkbox"/> Other Other Specify -

Facility Modification	
Facilities Modification Available: <input type="radio"/> <input type="radio"/> Pairs To Be Used: F1 (CA-PR): F2 (CA-PR): F3 (CA-PR): F4 (CA-PR): Loop Make Up if Available:	Define Facility Modification: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other: Estimated Completion Date: EWO# (please provide if available):
Date forwarded to DDL Bucket:	

=====

Status: Inquiry Complete

Status:



Remarks: Loop too long, and no qualified spares., By Lawrence Williams, 05/02/2000 10:03:03 AM

See **See**

=====

Sent to LQC By Brian Y. Bird 05-02-2000 08:29:58 AM
Received By LQC By KAREN L. ARNOLD 05/02/2000 08:42:35 AM
Sent to FMC By KAREN L. ARNOLD 05/02/2000 09:17:17 AM
Inquiry Complete By Lawrence Williams 05/02/2000 10:03:03 AM
Inquiry Complete By Brian Y. Bird 05-03-2000 08:42:13 AM

Inquiry Complete Date: 05/03/2000 08:42:13 AM

Request Information

Worklist Request Forms View Administration About

PON

375133

Version

AA

Request Type

SR NO

EP20000501049934

DDD

05/09/00

Customer Name

BEACON HILL NANN

CPH Entry

User ID	Date
7BRIANBC	05/0
7BRIANBC	05/0
SYSTEM	05/0
7BRIANBC	05/0
7BRIANBC	05/0
JANICMIC	05/0
SYSTEM	05/0

Case Progress History Detail

User ID

7BRIANBC

Date

05/03/00

Time

09:06

Subject

QUERY ADDED

History Entry

LOOP NOT QUALIFIED-LOOP LENGTH TOO LONG (18,500 FT)
AND NO SPARE COPPER FACS. PLEASE SEND SUP 1. THANK
YOU BRIAN 800-227-0660

OK

Apply

Cancel

View Entry